IN THE CLAIMS

Please amend the claims to read as indicated herein.

30. (previously presented) An illumination system for light having wavelengths ≤193 nm, comprising:

a first field raster element for receiving a first diverging portion of said light and directing a first bundle of said light;

a second field raster element for receiving a second diverging portion of said light and directing a second bundle of said light, wherein said first field raster element is oriented at an angle with respect to said second field raster element to cause a center ray of said first bundle to intersect with a center ray of said second bundle at an image plane, wherein said first and second field raster elements produce secondary sources of said light; and

an optical element for imaging said secondary sources of said light in an exit pupil, wherein said optical element is situated in a path of said light after said first and second field raster elements and before said image plane.

31. (previously presented) The illumination system of claim 30, wherein said first field raster element is movable so that said angle can be altered.

32. (canceled)

33. (previously presented) The illumination system of claim 30, wherein said first and second field raster elements have positive optical power.

34. (previously presented) The illumination system of claim 30, wherein said illumination system produces images of said first and second field raster elements that are superimposed, at least partially, in said image plane.

35. (previously presented) The illumination system of claim 30, wherein said first and second field raster elements are rectangular in shape.

36. (previously presented) The illumination system of claim 30, wherein said optical element forms a ring field of said light in said image plane.

37. (previously presented) The illumination system of claim 30, wherein said illumination system further comprises:

a first pupil raster element for receiving and directing said first bundle from said first field raster element; and

a second pupil raster element for receiving and directing said second bundle from said second field raster element.

38. (previously presented) The illumination system of claim 37, wherein said first and second pupil raster elements are located at or nearby a site of said secondary sources of said light.

39. (previously presented) The illumination system of claim 37,

wherein said first pupil raster element images said first field raster element in said image plane, and

wherein said second pupil raster element images said second field raster element in said image plane.

40. (previously presented) The illumination system of claim 39, wherein said illumination system provides a one-to-one correlation between said first and second field raster elements and said first and second pupil raster elements.

41. (previously presented) The illumination system of claim 30, further comprising a second optical element for providing said first and second diverging portions of said light to said first and second field raster elements.

42. (previously presented) The illumination system of claim 30, wherein said wavelengths are in a range of about 10 nm to 15 nm.

43. (previously presented) A projection exposure apparatus for microlithography, comprising:

the illumination system of claim 30;

a first carrier for positioning a mask in said image plane of the illumination system;

a second carrier for a light sensitive object; and

a projection objective having an entrance pupil in a same plane as said exit pupil of the illumination system, for imaging said mask onto said light sensitive object.

44. (previously presented) A process for producing a microelectronic component, comprising utilizing the projection exposure apparatus of claim 43.

45. (previously presented) An illumination system for light having wavelengths ≤193 nm, comprising:

a first field raster element for receiving a first diverging portion of said light and directing a first bundle of said light;

a second field raster element for receiving a second diverging portion of said light and directing a second bundle of said light, wherein said first field raster element is oriented at an angle with respect to said second field raster element to cause a center ray of said first bundle to intersect with a center ray of said second bundle at an image plane; and

an optical element for imaging secondary sources of said light in an exit pupil, wherein said optical element is situated in a path of said light after said first and second field raster elements and before said image plane,

wherein said first and second field raster elements are of a rectangular shape, produce said secondary sources of said light, and have positive optical power,

wherein said illumination system produces images of said first and second field raster elements that are superimposed, at least partially, in said image plane, and

wherein said optical element forms a ring field of said light in said image plane.

46. (previously presented) The illumination system of claim 45, wherein said illumination system further comprises:

a first pupil raster element for receiving and directing said first bundle from said first field raster element; and

a second pupil raster element for receiving and directing said second bundle from said second field raster element.

47. (previously presented) The illumination system of claim 46, wherein said first and second pupil raster elements are located at or nearby a site of said secondary sources of said light.

48. (previously presented) The illumination system of claim 46,

wherein said first pupil raster element images said first field raster element in said image plane, and

wherein said second pupil raster element images said second field raster element in said image plane.

49. (previously presented) The illumination system of claim 48, wherein said illumination system provides a one-to-one correlation between said field raster elements and said pupil raster elements.

50. (currently amended) An illumination system for wavelengths ≤193 nm, particularly for EUV lithography with

a primary light source;

a device for producing secondary light sources,

~~comprising at least a first mirror and~~

one or more first optical elements, which are arranged between the device and an image plane of the illumination system,

wherein the first optical elements image the secondary light sources in an exit pupil of the illumination system;

wherein the device for producing secondary light sources comprises a collector unit,

wherein a diverging beam is impinging on the collector unit,

wherein the collector unit comprises one or more second optical elements for collecting the diverging beam,

wherein the second optical element comprises a first mirror or lens which is divided into raster elements

wherein the raster elements are arranged to collect the diverging beam.

51. (previously presented) The illumination system of claim 50, wherein said raster elements are rectangular in shape.

52. (previously presented) The illumination system of claim 50, wherein said first optical elements form a ring field of said light in said image plane.

53. (previously presented) An illumination system for light having wavelengths ≤193 nm, comprising:

a first field raster element for receiving a first diverging portion of said light and directing a first bundle of said light;

a second field raster element for receiving a second diverging portion of said light and directing a second bundle of said light, wherein said first field raster element is oriented at an angle with respect to said second field raster element to cause a center ray of said first bundle to intersect with a center ray of said second bundle at an image plane of said illumination system, and wherein said first and second field raster elements produce secondary sources of said light; and

an optical element for imaging said secondary sources of said light in an exit pupil of said illumination system, wherein said optical element is situated in a path of said light after said first and second field raster elements and before said image plane,

wherein said illumination system produces images of said first and second field raster elements that are superimposed, at least partially, in said image plane.

54. (previously presented) The illumination system of claim 53, wherein said first and second field raster elements are rectangular in shape.

55. (previously presented) The illumination system of claim 53, wherein said optical element forms a ring field of said light in said image plane.

56. (previously presented) The illumination system of claim 53, wherein said optical element comprises a wobbling mirror.

57. (previously presented) The illumination system of claim 56, wherein said wobbling mirror is situated close to said image plane.

58. (previously presented) The illumination system of claim 53, wherein said optical element comprises a mirror with a dynamically deformable mirror surface.